

Amendments to the Drawings:

The attached replacement drawing sheets replace drawings sheets 1-23 showing Figs. 1-23.

Attachment: Replacement Drawing Sheets

REMARKS

Claims 1-8 are pending in this application, of which claims 4-8 have been withdrawn. In addition, withdrawn claims 9-19 have been cancelled. Applicant reserves the right to file a divisional application to pursue these claims. Because claims 4-8 depend from elected claims 1-3, claims 4-8 should be rejoined when claims 1-3 are allowed.

The courtesies extended to Applicant's representative by Examiner Arancibia at the interview held October 11, 2006, are appreciated. The reasons presented at the interview as warranting favorable action are incorporated into the remarks below and constitute Applicant's record of the interview.

I. Objection to the Drawings

The Office Action objects to the drawings under 37 C.F.R. §1.84(b)(4).

By this Amendment, formal drawings with corrected Fig. 2 are submitted replacing prior drawing sheets 1-23. Additionally, Fig. 2 is amended so that the reference character referring to the upper substrate is 140. Applicant requests withdrawal of the objection.

II. Claim Rejections under 35 U.S.C. §102 and 35 U.S.C. §103

The Office Action rejects claims 1 and 2 under 35 U.S.C. §102(b) over U.S. Patent No. 6,234,623 to Drake and rejects claim 3 under 35 U.S.C. §103(a) over Drake. Applicant respectfully traverses the rejections.

The Office Action asserts that openings 55 and ink supply manifold 45 correspond to the claim 1 first passages and second passages, respectively, and that the aperture 60 corresponds to the claim 1 third passages.

Because there is only one ink manifold 45, Drake fails to disclose a plurality of second passages. During the interview, Examiner Arancibia alleged that, referencing Fig. 5A, Drake discloses a wafer having a plurality of channel plates 31, implying a plurality of ink manifolds

45. However, as Applicant explained during the interview, these channel plates 31 are diced or cut apart, prior to joining with heater plate 28. Thus, the ink manifolds 45 are not formed until after the channel plates 31 are cut apart. At that point there is a single ink manifold for each substrate.

Further, Drake fails to disclose the claim 1 third passages. Drake discloses openings 55 through the channel plate 31 and apertures 60, defined by columns 61, in the insulating layer 18. Both openings 55 and apertures 60 connect the internal chamber 56 with the ink manifold 45. As can be seen in Fig. 3, the upper sides of columns 61 close off the lower sides of openings 55. See col. 4, lines 51-52 ("columns 61 directly oppose etched openings 55" (emphasis added)).

Because openings 55 and apertures 60 are not connected together, the rejection as set forth in the Office Action fails to establish that Drake discloses the claim 1 third passages. During the interview, Examiner Arancibia argued that openings 55 and apertures 60 are offset such that there is a fluidic connection between them along their lengths, i.e., that filtering takes place as particles move from one of openings 55 or apertures 60 to the other.

As argued at the interview, this is not supported by Drake. Drake indicates, as discussed above, that the upper sides of columns 61 directly oppose openings 55. Further, Drake indicates that the filtering is done by the openings 55 and apertures 60 when particles cannot pass through either openings 55 or apertures 60 (col. 4, lines 56-67). Drake states "the pore size of the filter arrays (i.e., openings 55 and apertures 60) should be selected to be equal to or smaller than the size/width of the ink channel so that contaminants will not pass through the filter and clog the individual ink channels." (col. 4, lines 64-67).

For the foregoing reasons, the claims are patentable over Drake. Applicant respectfully requests withdrawal of the rejections.

III. Double Patenting Rejections

The Office Action provisionally rejects claim 1 under the doctrine of obviousness-type double patenting over claim 1 of copending Application No. 10/707,535 and rejects claims 2-3 under the doctrine of obviousness-type double patenting over claim 1 of copending Application No. 10/707,535 in view of U.S. Patent No. 4,612,554 to Poleshuk.

These rejections have not matured in that the cited application is still pending and its claim 1 could be amended. When the rejections have matured, Applicant will reconsider the rejections and respond appropriately.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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JAO:JHB/sas

Attachment:
Formal Drawing Sheets (Figs. 1-23)

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